**INTRODUCTION**

The relationship between house prices and the economy is an important motivating factor for predicting house prices. A property’s value is important in real estate transactions. Housing price trends are not only the concern of buyers and sellers, but it also indicates the current economic situation. Therefore, it is important to predict housing prices without bias to help both the buyers and sellers make their decisions.

There are many factors which has impact on house prices, such as location, BHK, floor etc. Also, a location with a great accessibility to highways, expressways, schools, shopping malls and local employment opportunities contributes to the rise in house price. Manual house prediction becomes difficult, hence there are many systems developed for house price prediction. The aim of this system is to create a website through which the user can give his house requirements as input which is then passed on to the linear regression model for predicting the house price

**EXISTING SYSTEM**

The world is shifting from manual to automated systems. The objective of our project is to reduce the problems faced by the customer. In the present situation, the customer visits a real estate agent so that he/she can suggest suitable houses for his investments. But the above method is risky as the agent may forecast wrong prices to the customer and that will lead to loss of customer’s investment. This manual technique which is currently used in the market is outdated and has a high risk. So as to overcome the drawback, there is a need for an updated and automated system.

PROPOSED SYSTEM

In our proposed system we bult a web application were we take some important attributes as input like (no.bathrooms ,bedrooms ,latitutue,longitude,pincode,area size,etc) and we predict the price using multiple linear regression.we take sataset and train them to predict the price of the house and we calculate the mean absolute error.(inka konchum modify cheyu ra)

**SYSTEM SPECIFICATIONS**

**SOFTWARE REQUIREMENTS:**

OS : Windows

Python IDE : python 2.7.x and above

Jupter notebook,

Anaconda 3.5

Setup tools and pip to be installed for 3.6.x and above .

**HARDWARE REQUIREMENTS:**

RAM : 4GB and Higher

Processor : Intel i3 and above

Hard Disk : 500GB: Minimum

Literature survey(don’t add now only )

Linear Regression is the oldest and most widely used predictive model in the field of machine learning. The goal is to minimize the sum of the squared errors to fit a straight line to a set of data points.The linear regression model fits a linear function to a set of data points. The form of the function is: Y = β0 + β1\*X1 + β2\*X2 + … + βn\*Xn Where Y is the target variable, and X1, X2, ... Xn are the predictor variables and β1, β2, … βn are the coefficients that multiply the predictor variables. β0 is constant

**Modules**

**Supervised Classification (Training Dataset)**

The data has been divided into two parts i.e., training and testing data in the 70:30 ratios. Learning algorithms have been applied on the training data and based on the learning, predictions are made on the test data set.

**Supervised Classification (Test Dataset)**

The test dataset is 30% of the total data. Supervised learning algorithms have been applied on the test data and the output obtained is compared with the actual output.

**Libraries :**

**Pandas:** pandas is an open source, BSD-licensed library providing high-performance, easy-to-use data structures and data analysis tools for the Python programming language.

**MatPlotLib**: matplotlib.pyplot is a plotting library used for 2D graphics in python programming language. It can be used in python scripts, shell, web application servers and other graphical user interface toolkits

**Scikit-learn**: Scikit-learn is a free machine learning library for Python. It features various algorithms like support vector machine, random forests, and k-neighbors, and it also supports Python numerical and scientific libraries like NumPy and SciPy.